Small Business Innovation Research/Small Business Tech Transfer

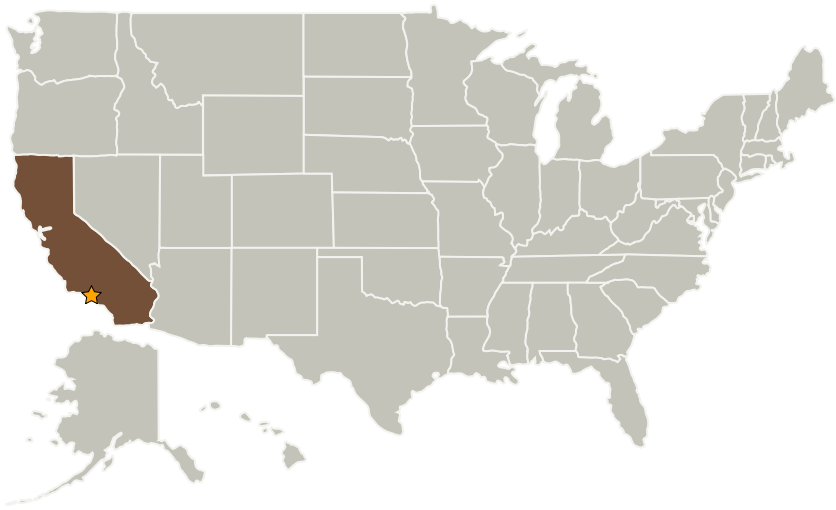
Expanded Operational Temperature Range for Space Rated Li-Ion Batteries, Phase I

Completed Technology Project (2008 - 2008)

Project Introduction

Quallion's response to this solicitation calls for expanding the nominal operation range of its space rated lithium ion cells, while maintaining their long life capabilities. To expand this temperature range, Quallion will conduct analysis on a variety of materials. At the end of the program, Quallion will choose the two most promising formulations and deliver test cells for analysis by NASA. In Phase II, Quallion will further optimize the formulations from Phase I and fabricate our large format satellite cells for cell and battery level qualification. Quallion is also proposing a "right sizing" of this production facility to allow for cost effective, low volume production with enhanced reliability, long-term supply guarantee and design flexibility that allows for future production for NASA missions.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Jet Propulsion Laboratory(JPL)	Lead Organization	NASA Center	Pasadena, California
Quallion, LLC	Supporting Organization	Industry	Sylmar, California

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Jet Propulsion Laboratory (JPL)

Responsible Program:

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Primary U.S. Work Locations
California

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Hisashi Tsukamoto

Technology Areas

Primary:

- TX03 Aerospace Power and Energy Storage
  - TX03.2 Energy Storage
    - TX03.2.2 Electrochemical: Fuel Cells